COURSE: UNIV 501
TERM: SPRING 2016
ROOM: DUNCAN 113
CLASS: FRIDAY, 9:00-12:00

RESEARCH ON TEACHING AND LEARNING

CONTACT INFORMATION

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Office Hours: By Appointment (https://goo.gl/d4D07w)

COURSE DESCRIPTION

This course explores scholarship on teaching and learning in detail with special attention to the breadth of approaches and methodologies. The culminating project will be a literature review in an area of interest.

LEARNING OUTCOMES

Insofar as this course contributes to the larger program outcomes of the CTE's proposed Graduate Certificate in Teaching and Learning, it is designed to help students to:

- Develop an understanding of and explain best practices in teaching and learning
- Assess key trends and methodologies in the scholarship of teaching and learning

More specifically, this course will prepare students to:

- Describe, evaluate, and communicate the impact of scholarship of teaching and learning
- Discuss and analyze different approaches to doing research on teaching and learning
- Identify and evaluate the areas of teaching/learning research that apply to their fields and specific interests

TEXTS AND MATERIALS

Hattie, John. *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*. London; New York: Routledge, 2009.

All other readings will be available on the course Canvas page. Students must have a valid NetID to log into Canvas, and are required to do so daily to participate in this course.

REQUIREMENTS

Reading: The success of this course depends upon you (and your classmates) reading, and reading closely, all that is assigned throughout the semester. To prepare for class discussions, you should take careful notes on what you've read, summarize key points, highlight unclear passages, raise further questions, and note where you agree or disagree. Alongside the material you read for your project, you should expect to read (and engage) an

average of 30-70 pages a week. Reading assignments appear on the schedule below, and are to be completed by the date indicated.

Participation: Because research suggests you are more likely to achieve the learning outcomes of this course by engaging the content, I will spend very little time lecturing. Instead, our class time will be a mixture of mini-lectures, discussions, and numerous in-class activities designed to help you learn the material. What that means for you is that this is not going to be a class where you simply show up and take your own personal notes. In addition to participating in all activities, I will expect each of you to contribute to our in-class conversations. If you consistently comment on the course readings, ask questions when perplexed, or answer questions I raise in class, you will have met my expectations in this regard. And if you respond to the comments of other students, or constructively disagree with a claim being discussed, your contributions will be considered exemplary.

Office Hours: You are required to attend at least one of my office hours within the first two weeks of classes. You don't need to prepare anything for this meeting and I will be happy to set up appointments to accommodate your schedules. The purpose of this meeting is simply for us to get to know one another and should last no longer than 30 minutes. You can sign up for an appointment here: http://goo.gl/HJQ2p5 (Links to an external site.). I will maintain a similar appointment calendar throughout the semester, and I encourage you to sign up for appointments any time you would like further individualized feedback on your work.

Facebook: Because our 14 class periods are unlikely to provide enough time for us to cover all the material we would like to discuss each day, students are encouraged to continue (and initiate) class conversations via Facebook. To facilitate that process, I have created a group page for the class. So that you can join without becoming Facebook friends, the group is currently "closed." This means that anyone can send a request to join if he or she has a link to the group page, but the group and its members will not be visible in search results and on member timelines. Once you all have requested membership, I will convert the group to "secret," which hides all information about the group from everyone but its members. You can request membership at the following address: https://www.facebook.com/groups/2016UNIV501/ (Links to an external site.)

Literature Review Project: As you will quickly discover, the scholarship of teaching and learning is a genre of research that has many homes within the modern university. Although it is quickly becoming something of a discipline in its own right, a great deal of the most important work takes place within more traditional disciplines. Because UNIV 501 is interdisciplinary by design, we will spend most of our time with the former, generally applicable research. To ensure that you are exposed to the research in your discipline, however, you will be required to complete a brief review of the literature relevant to a pedagogical question of your choosing--often (though not necessarily) unique to your discipline. Although this is the only formal assignment of the semester, it contains a number of independent parts with distributed due dates. Each is described below.

> **Project Proposal:** You will need to submit the research question you propose to explore by Tuesday, February 16th. More information about this assignment (and examples from prior years) can be found here.
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> **Annotated Bibliography Drafts:** Your final literature review must include an annotated bibliography with at least 12 resources. Specific requires for your annotations (as well as examples) can be found here. To ensure that you work on the project throughout the semester, you will submit progressively longer portions of your annotated bibliography on the following three occasions:
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> - Tuesday, March 8th: 4 sources
> - Tuesday, March 22nd: 8 sources
> - Tuesday, April 12th: 12 sources
>
> **Peer-Review of Drafts:** Apart from engaging my feedback, there are few activities that will improve your work more than engaging with a peer who has spent hours reading and thinking about your work and the ways it might be improved. Thus, another major requirement of this course is that you take the time to

carefully read and comment on the work of others at various points throughout the semester. While you will be asked to give some feedback in class, you will also be required to submit more formal feedback to a randomly selected colleague after the submission of the first, second, and third drafts of your annotated bibliographies. You will be given access to their work in Canvas and will have one week to upload your feedback.

Final Annotated Bibliography and Synthesis: The final draft of your annotated bibliography, as well as a 1500-word synthesis of the research is due by midnight on Tuesday, April 26th.

Poster Presentation: Our scheduled exam day/time will be devoted to a poster session where all students will present their literature review in visual form. Details about the standards for the poster can be found here, but we expect these posters to highlight the problem and/or question you researched, the most important and/or interesting findings in the literature, any previous or contemporary debates about those findings, and your conclusions about the practical implications of the literature for faculty in the classroom. You will also be expected to walk other students through your posters via a short, 5-minute oral presentation.

COURSE POLICIES

Attendance: While much of your learning will occur while you read, take notes, and write, being present in class is equally important. As a result, attendance is required and more than two unexcused absences will begin to affect your grade (for more details on grading, see below). In very rare circumstances, I will excuse an absence, but for this to happen you must 1) consult with me in advance of the class you plan to miss, and 2) complete an additional assignment to make-up for the work you missed while gone. The only exceptions to this rule are medical emergencies affecting yourself or your family. All judgments about excused absences will be at my discretion, and I may ask for supporting documentation.

Late Work: You are expected to meet the deadlines for each assignment in this course and missing more than two will begin to affect your grade (for more details on grading, see below). In very rare circumstances, I will grant you an approved extension, but for this to happen you must 1) consult with me in advance of the due date, and 2) complete the assignment within 48 hours of the original due date and time. For obvious reasons, extensions will not be granted for the submission of your final poster. Illnesses, family emergencies, or accidents that require extended periods away from school and prevent you from meeting these requirements should be referred immediately to the Committee on Examinations and Standing. This University committee reviews petitions and handles other special problems that involve the academic rules of the University. More information about when and how to file a petition can be found here: http://students.rice.edu/students/Exams2.asp

Academic Honesty: In this course, I will hold you to the standards of the Rice Honor Code, a code that you pledged to honor when you matriculated at this institution. If you are unfamiliar with the details of this code and how it is administered, you should consult the Honor System Handbook at http://honor.rice.edu/honor-system-handbook/. This handbook outlines the University's expectations for the integrity of your academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process.

Americans with Disabilities Act: If you have a documented disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Disability Support Services (Allen Center, Room 111; adarice@rice.edu; 713-348-5841) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

Syllabus Change Policy: This syllabus is only a guide for the course and is subject to change with advanced notice.

GRADING AND EVALUATION

The CTE envisions these seminars to be more like workshops than formal coursework, so we are more interested in improving your work than we are in evaluating it. To ensure our focus is on the former rather than the latter, we will employ a "specifications" grading system this semester. Like most grading systems, specifications grading lays out specific standards for earning various grades at the beginning of the semester. The difference is that these standards are not set to reflect your average performance on all assignments. Instead, they are set to reflect the extent to which you have or have not met the specific goals of the course. The grading specs for UNIV 501 are as follows:

You are required to meet the following goals to earn an **A** in this course:

- No more than two unexcused absences
- No more than two late submissions
- Exemplary participation in class activities and discussions
- Completion of all required assignments

You are required to meet the following goals to earn an **A-** in this course:

- No more than three unexcused absences
- No more than three late submissions
- Average participation in class activities and discussions
- Completion of all required assignments

You are required to meet the following goals to earn a **B+** in this course:

- No more than four unexcused absences
- No more than four late submissions
- Average participation in class activities and discussions
- Completion of all required assignments

You are required to meet the following goals to earn a **B** in this course:

- No more than five unexcused absences
- No more than five late submissions
- Below-average participation in class activities and discussions
- Completion of all required assignments

You are required to meet the following goals to earn a **B-** in this course:

- No more than six unexcused absences
- No more than six late submissions
- Below-average participation in class activities and discussions
- Completion of all required assignments

ASSIGNMENT SCHEDULE

1/15	**CTE Symposium on Teaching and Learning**
	In lieu of meeting together from 9:00-12:00 on our first day, you are required to attend our annual symposium on teaching and learning in McMurtry Auditorium (schedule is below). As this is a requirement, we will automatically include you in our head count for food, so please be courteous and alert me via e-mail if something comes up and you are unable to attend. 10:00-10:15: Opening Remarks 10:15-11:15: Presentation on Rice Syllabi Project, by Margaret Beier 11:15-12:30: Lunch 12:30-02:00: Workshop with Todd Zakrajsek
1/22	**Evidence of Learning (or lack thereof) On College Campuses (55 Pages)**
	Arum, Richard, and Josipa Roksa. "College Cultures and Student Learning." In *Academically Adrift: Limited Learning on College Campuses*, 1–31. University of Chicago Press, 2011. Arum, Richard, and Josipa Roksa. "A Mandate for Reform." In *Academically Adrift: Limited Learning on College Campuses*, 121–44. University of Chicago Press, 2011.
1/29	**The Status of Teaching on Campus (77 Pages)**
	Boyer, Ernest L. "Scholarship Over Time." In *Scholarship Reconsidered: Priorities of the Professoriate*, 1–13. Princeton, N.J.: The Carnegie Foundation for the Advancement of Teaching, 1990. Shulman, Lee S. "Knowledge and Teaching: Foundations of the New Reform." In *Teaching as Community Property: Essays on Higher Education*, 84–113. San Francisco, CA: Jossey-Bass, 2004. [Originally published in 1987] Pace, David. "The Amateur in the Operating Room: History and the Scholarship of Teaching and Learning." *The American Historical Review* 109, no. 4 (October 1, 2004): 1171–92. Shulman, Lee S. "Teaching as Community Property: Putting an End to Pedagogical Solitude." In *Teaching as Community Property: Essays on Higher Education*, 140-144. San Francisco, CA: Jossey-Bass, 2004. [Originally published in 1993]
2/5	**The Scholarship of Teaching and Learning (54 Pages)**
	Bass, Randy. "The Scholarship of Teaching: What's the Problem?" *Inventio: Creative Thinking about Teaching and Learning* 1, no. 1 (1999): 1–10. Hutchings, Pat, and Lee S. Shulman. "The Scholarship of Teaching: New Elaborations, New Developments." In *Teaching as Community Property: Essays on Higher Education*, 146-154. San Francisco, CA: Jossey-Bass, 2004. [Originally published in 1999] Richlin, Laurie. "Scholarly Teaching and the Scholarship of Teaching." *New Directions for Teaching*

	and Learning 2001, no. 86 (June 1, 2001): 57–68 Hutchings, Pat, Mary Taylor Huber, and Anthony Ciccone. "Why the Scholarship of Teaching and Learning Matters Today." In *The Scholarship of Teaching and Learning Reconsidered: Institutional Integration and Impact*, 1–23. San Francisco, CA: Jossey-Bass, 2011.
2/12	**Examples: Lectures, Problem-Based Learning, Case Studies, Team-Based Learning, Interteaching, Just-in-Time Teaching, Service Learning, and Online Learning**
	You are only required to read four of the eight SoTL projects below. Please read those assigned in class on February 5th. Chaudhury, S. Raj. "The Lecture." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 13–20. Allen, Deborah E., Richard S. Donham, and Stephen A. Bernhardt. "Problem-Based Learning." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 21–29. Herreid, Clyde Freeman. "Case Study Teaching." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 31–40. Michaelsen, Larry K., and Michael Sweet. "Team-Based Learning." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 41–51. Saville, Bryan K., and Tracy E. Zinn. "Interteaching." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 53–61. Novak, Gregor M. "Just-in-Time Teaching." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 63–73. Felten, Peter, and Patti H. Clayton. "Service-Learning." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 75–84. Perry, Edward H., and Michelle L. Pilati. "Online Learning." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 95–104.
2/16	**Draft of Research Question, Due by 11:59PM**
2/19	**Methodological Challenges (51 pages)**
	Groccia, James E., and William Buskist. "Need for Evidence-Based Teaching." *New Directions for Teaching & Learning* 2011, no. 128 (Winter 2011): 5–11. Hattie, John. "The Challenge." In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 1–6. London ; New York: Routledge, 2009. Murnane, Richard J., and John B. Willett. "The Challenge for Educational Research." In *Methods Matter: Improving Causal Inference in Educational and Social Science Research*, 3-13. Oxford ; New York: Oxford University Press, 2011.

	McKinney, Kathleen. “How Do I Design My SoTL Project?” In *Enhancing Learning through the Scholarship of Teaching and Learning: The Challenges and Joys of Juggling*, 67–79. Bolton, Mass: Anker Pub. Co, 2007. Murnane, Richard J., and John B. Willett. “Designing Research to Address Causal Questions.” In *Methods Matter: Improving Causal Inference in Educational and Social Science Research*, 26–39. Oxford ; New York: Oxford University Press, 2011.
2/26	**Methodological Challenges, Continued (53 pages)**
	Bartsch, Robert A. “Designing SoTL Studies-Part I: Validity.” *New Directions for Teaching & Learning* 2013, no. 136 (Winter 2013): 17–33. Bartsch, Robert A. “Designing SoTL Studies-Part II: Practicality.” *New Directions for Teaching & Learning* 2013, no. 136 (Winter 2013): 35–48. Wilson-Doenges, Georjeanna. “Statistical Models for Analyzing Learning Data.” *New Directions for Teaching & Learning* 2013, no. 136 (Winter 2013): 49–58. Hattie, John. “The Nature of the Evidence: A Synthesis of Meta-Analyses.” In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 7–21. London ; New York: Routledge, 2009. **Note:** Last day to drop the course without penalty
3/8	**Annotated Bibliography: Draft I, Due by 11:59PM**
3/11	**Hattie: The Contributions from the Student and Home (33 pages)**
	Hattie, John. “The Contributions from the Student.” In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 39–60. London ; New York: Routledge, 2009. Hattie, John. “The Contributions from the Home.” In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 61–71. London ; New York: Routledge, 2009. **Contributions Covered:** prior achievement; piagetian programs; self-report grades; creativity; personality; self-concept; motivation; concentration/persistence/engagement; reducing anxiety; attitude to mathematics/science; pre-term birth weight; illness; diet; exercise/relaxation; drugs; gender; positive view of ethnicity; early intervention; preschool programs; socioeconomic status; welfare policies; family structure; home environment; television; parental involvement; home visiting
3/15	**Peer-Review of Annotated Bibliography: Draft I, Due by 11:59PM**
3/18	**Hattie: The Contributions from the School and Teacher (57 pages)**
	Hattie, John. “The Contributions from the School.” In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 72–107. London ; New York: Routledge, 2009. Hattie, John. “The Contributions from the Teacher.” In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 108–28. London ; New York: Routledge, 2009.

	Contributions Covered: finances; charter schools; religious schools; summer schools; desegregation; college halls of residence; school size; summer vacation; mobility; out of school experiences; principals/school leaders; class size; open vs. traditional; ability grouping; multi-grade/age classes; within-class grouping; small group learning; mainstreaming; retention; ability grouping for gifted; students; acceleration; enrichment; classroom management; classroom cohesion; classroom behavioral; decreasing disruptive behavior; peer influences; teacher training; microteaching; teacher subject matter knowledge; quality of teaching; teacher-student relationships; professional development; expectations; not labeling students; teacher clarity
3/22	**Annotated Bibliography: Draft II, Due by 11:59PM**
3/25	**Hattie: The Contributions from the Teaching Approaches, Part I (39 pages)**
	Hattie, John. "The Contributions from the Teaching Approaches--Part I." In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 161–99. London ; New York: Routledge, 2009. **Contributions Covered:** learning goals; organization; concept mapping; learning hierarchies; mastery learning; Keller's PIS; worked examples; feedback; frequency or effects of testing; teaching test taking and coaching; providing formative evaluation; questioning; teacher immediacy; time on task; spaced vs. massed practice; peer tutoring; mentoring; meta-cognitive strategies; study skills; self-verbalization/self-questioning; student control over learning; aptitude-treatment interactions; matching style of learning; individualized instruction
4/5	**Peer-Review of Annotated Bibliography: Draft II, Due by 11:59PM**
4/8	**Hattie: The Contributions from Teaching Approaches, Part II (37 pages)**
	Hattie, John. "The Contributions from the Teaching Approaches--Part II." In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 200–236. London ; New York: Routledge, 2009. **Contributions Covered:** reciprocal teaching; direct instruction; adjunct aids; inductive teaching; inquiry-based teaching; problem-solving teaching; problem-based learning; cooperative learning; cooperative vs. competitive learning; cooperative vs. individualistic learning; competitive vs. individualistic learning; comprehensive teaching reforms; comprehensive interventions for learning disabled students; special college programs; co-teaching/team teaching; computer-assisted instruction; web-based learning; interactive video methods; visual/audio-visual methods; simulations; programmed instruction; distance education; home-school programs; homework
4/12	**Annotated Bibliography: Draft III, Due by 11:59PM**
4/15	**Hattie: Overview (43 pages)**
	Hattie, John. "The Argument: Visible Teaching and Visible Learning." In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 22–38. London ; New York: Routledge, 2009. Hattie, John. "Bringing It All Together." In *Visible Learning: A Synthesis of over 800 Meta-Analyses Relating to Achievement*, 237–61. London ; New York: Routledge, 2009.
4/19	**Peer-Review of Annotated Bibliography: Draft III, Due by 11:59PM**

4/22	**Additional Syntheses (70 pages)**
	Dunlosky, John, Katherine A. Rawson, Elizabeth J. Marsh, Mitchell J. Nathan, and Daniel T. Willingham. “Improving Students’ Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology.” *Psychological Science in the Public Interest* 14, no. 1 (January 1, 2013): 4–58. Freeman, Scott, Sarah L. Eddy, Miles McDonough, Michelle K. Smith, Nnadozie Okoroafor, Hannah Jordt, and Mary Pat Wenderoth. “Active Learning Increases Student Performance in Science, Engineering, and Mathematics.” *Proceedings of the National Academy of Sciences* 111, no. 23 (June 10, 2014): 8410–15.
4/26	**Final Annotated Bibliography and Synthesis, Due by 11:59PM**
5/3	**Poster, Due by 11:59PM**
5/4	**Poster Session**
	Due: Poster